

ABSTRACT

A missile includes a payload assembly that has a pair of nosecones. The nosecones may be optimized for different environments and/or phases of flight, for example, having different shapes, different shell materials, different types of seals, and/or different separation mechanisms. The first (outer) nosecone may have a more streamlined shape, be made of more thermally-protective material, and may meet less stringent sealing requirements, than the second (inner) nosecone. Separation of the outer nosecone from the payload assembly may cause backward movement of a center of pressure of the payload assembly, bringing the center of pressure of the assembly closer to a center of gravity of the assembly. This may make the payload assembly easier to maneuver, for example, reducing or eliminating the need for intervention by an attitude control system, to maintain the payload assembly on a desired course.